

**In the Claims:**

Please amend the claims pursuant to 37 CFR 1.121 as follows:

Claims 1 - 9 (canceled).

Claim 10 (currently amended): A method for measuring the absolute wafer  
(process) temperature and composition of layers, growth parameters of a multi-layer material  
~~while the layers are being built up~~ comprising the steps of  
illuminating a layer during epitaxy under constant processing conditions with a constant  
illuminating energy and  
measuring the reflectivity of the layer over time to determine a position and a value of an  
extremum of Fabry-Perot oscillations of the layer and then  
comparing the position and the value of the extremum to a standard.

Claim 11 (previously presented): The method of claim 10 wherein the multi-layer  
material is a semiconductor.

Claim 12 (previously presented ): The method of claim 10 wherein the position and  
the value of a first minimum of the Fabry-Perot oscillations is utilized.

Claim 13 (canceled)

Claim 14 (previously added): The method of claim 10, wherein the measured reflectivity  
is related to the reflectivity of a reference material, on which at least one layer of the reference  
material is built up.

Claim 15 (previously added): The method of claim 14, wherein the measured reflectivity  
is normalized.

Claim 16 (previously added): The method of claim 10, wherein at the end of a process

step or of the whole process, a layer of the same material as a substrate material, on which at least one layer is built up, is washed and its characteristics are compared with the characteristics present at the start of the process.

Claim 17 (previously added): The method of claim 10, wherein the material properties are monitored at the same time, at least before the start and after the end of the process by an RAS measurement.

Claim 18 (previously added): The method of claim 10, wherein the reflectivity at the position and the value of the extremum of the Fabry-Perot oscillations under consideration is used to determine the process temperature.

Claim 19 (previously added): The method of claim 10, wherein the process time up to the position and the value of the extremum of the Fabry-Perot oscillations under consideration is used to determine the growth rate of the layers.

Claim 20 (currently amended): The method of claim 10, wherein, ~~when the process temperature is determined previously~~, a position and a value of an extremum of Fabry-Perot oscillations of a ternary layer under consideration is used to determine the composition of the layer.

Claim 21 (previously added): The method of claim 10, wherein the illumination energy is selected in a range, in which the temperature dependence of a real part of a dielectric function of participating materials is monotonic.